# SFT221 SCRUM Report and Reflections

This report should be completed in the class and submitted at the end of class. Late submissions cannot be accepted without prior approval of the instructor. All students are expected to attend the in-class SCRUM meetings and to participate. Failure to do so will result in greatly reduced grades.

**GROUP**: \_\_\_\_\_\_\_\_\_\_\_\_3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Members Present**:

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| 1. Prabhjot Singh Longia | 4. Divya Devendrasinh Rana |
| 2. Harsh Pahurkar | 5. |
| 3. Mukul Sharma | 6. |

## Milestone 4 Tasks

**Deliverables Due at end of Lab:**

* Completed SCRUM report and reflections

**Deliverables Due at 23:59 6 Days after Lab:**

* Implemented Functions
* Implemented blackbox tests (store in repo), executed (results in Jira and on corresponding test documents) and debugged,
* whitebox tests written and stored in repository.
* whitebox tests implemented (store in repo), executed (results in Jira and on corresponding test documents) and debugged.
* Updated function-test matrix stored in the repository.
* Completed hook for test automation

**Rubric**

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| Individual | Group Participation | 75% |
| Teamwork | 5% |
| SCRUM Report | 10% |
| Automation Hook | 10% |
| Group | Implemented Functions (well-designed, written and documented) | 20% |
| Whitebox tests (well-designed, written and documented) | 20% |
| Test Execution (performed, results recorded, issues created) | 20% |
| Debugging (Bugs fixed, documented, Jira updated) | 5% |
| Git Usage (used properly with good structure) | 5% |
| Jira Usage (creates issues, tracks progress) | 5% |
| Meets Deadlines | 5% |
| SCRUM Report and Reflections | 20% |

**SCRUM Report**

**Summary of Tasks Completed or Delayed in the last week:**

Here you can list all of the tasks completed in the last week along with any tasks which could not be completed with a reason why they could not be completed.

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| **Member** | **Tasks Completed** | **Tasks Delayed/Blocked** |
| **Prabhjot Singh** | **Function implementation and test automation hook to be created** |  |
| **Mukul Sharma** | **Black box and white box test execution with corresponding result updates on Jira** |  |
| **Harsh Pahurkar** | **White box tests to be created and the Test matrix to be updated accordingly.** |  |
| **Divya Rana** | **Preparing scrum reports, answering reflection questions and analyzing the bug report.** |  |
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For every task delayed or blocked, describe the reason for the delay or block, how it impacts the project and the proposed solution or workaround**.**

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| **Delayed or Blocked Task** |  |
| **Reason for delay or block** |  |
| **Impact on Project** |  |
| **Solution or work-around** |  |
|  |  |
| **Delayed or Blocked Task** |  |
| **Reason for delay or block** |  |
| **Impact on Project** |  |
| **Solution or work-around** |  |

**Summary of Meeting:**

A summary of the main points discusses in the meeting and the outcomes of the discussions.

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| Topic | Discussion Summary | Outcome |
| Development of function implementation and the establishment of automated testing mechanisms. | We talked about the necessity to concentrate on developing function implementations and incorporating automated testing procedures into our development workflow during the team meeting. | Following the discussion, the team decided to set aside specific resources to work on function implementation tasks while also creating automated test hooks to speed up the testing process. |
| Performing both black-box and white-box testing and updating the corresponding test results on Jira | During the team meeting, we discussed the importance of conducting comprehensive testing by combining black-box and white-box testing techniques. The objective is to guarantee thorough test coverage and spot any possible errors from the viewpoints of internal code and end users. | The team agreed to use a hybrid testing strategy that combines both black-box and white-box testing because of the discussion. |
| White box tests to be created and the Test matrix to be updated accordingly. | In the team meeting, we talked about how crucial it is to develop white-box tests that look at the software's fundamental logic and code routes. | Following the discussion, the team decided to give priority to developing white-box tests to supplement the current black-box tests. |
| Compiling Scrum reports, addressing reflective inquiries, and evaluating the bug report | The group agreed to create regular Scrum reports to track project development and spot potential obstacles. We also talked about the significance of reflecting to promote ongoing development and learn from the past. | Reflection questions were addressed, enabling the team to fully comprehend the milestone. |
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**Summary of Decisions Made:**

This will include major architecture and design decisions, testing decisions, prioritization of tasks, dealing with problems encountered and other major outcomes from the meeting.

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| Decision | Rationale |
| Function implementation and test automation hook will be done by Prabhjot | Through correct function implementation and automated testing procedures, the decision seeks to increase the quality of the code, increase the dependability of the product, and streamline the development processes. |
| Harsh will create White box tests and update test matrix. | The choice to do both black-box and white-box testing, as well as to update test results on Jira, seeks to ensure thorough test coverage, uncover potential issues from the perspectives of end-users and internal code, and enhance team communication and transparency throughout the testing process. |
| Mukul will execute white box and black box tests. | To improve the overall quality and dependability of the software, it was decided to develop white-box tests and update the test matrix. These actions seek to investigate the product's core logic, guarantee thorough test coverage, and discover any potential flaws or vulnerabilities in the code. |
| I will work on scrum reports and reflections, also analyze the bug report. | The choice to create Scrum reports, respond to reflective questions, and assess the bug report is made to track project progress, support continuous improvement, and quickly address software issues to improve project management, development practices, and teamwork. |
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**Tasks Attempted During Meeting:**

Each member is assumed to participate in the SCRUM meeting and contribute to the completion of the SCRUM report and reflections. Since the SCRUM meeting will not take more than 20-30 minutes, there is lots of time left to undertake some of the actual work tasks. In the table below, each member should list what they did to complete the SCRUM report, the reflections, and 1-4 other tasks they completed during the class period. If a task could not be completed, the student should indicate why this was not possible.

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| --- | --- | --- | --- |
| Member | Task Attempted | Time Spent | Complete? |
| Prabhjot | Created function implementation and test automation hook | 3 hours | YES |
| Harsh | Created white box tests and updated test matrix | 2 hours | YES |
| Mukul | Executed white box and Black box tests | 2 hours | YES |
| Divya | Worked on completing the scrum report, answering reflect question and analyzing bug report. | 2 hours | YES |
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**SCRUM Tasks Selected for Next Week**:

The tasks each member has selected to pursue for this class or the next week.

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| Group Member | Task Description |
| Prabhjot | Writing the integration tests and storing it in repo |
| Mukul | Writing and documenting acceptance tests |
| Harsh | Update the function-test matrix |
| Divya | Working on Scrum report, reflections and debugging |
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**Major Outcomes of Meeting:**

This is where you should highlight the major accomplishments of the class.

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| Outcome | Impact on Project |
| Function implementation was discussed | The impact on the project likely resulted in a more reliable and efficient software development process with improved code quality and faster testing cycles. |
| Black box and white box tests have been discussed | impact on the project enhanced test coverage, improved software reliability, and better collaboration and tracking of testing efforts among team members. |
| White box test cases have been created and discussed | resulted in thorough code coverage, improved software quality, and better tracking and management of testing activities, leading to a more reliable and robust software product. |
| Scrum report and reflections have been discussed | It enables continuous improvement and informed decision-making, positively impacting the project's progress and team dynamics. |
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**Things That Went Well in This Meeting:**

Here you can highlight things which worked well. This indicates that the way you worked on these items is working and should be continued.

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| Topic/Work Item | Reason for Success |
| Function implementation has been done | efficient and accurate conversion of requirements into workable code that achieves the desired functionality objectives. |
| White box test cases have been created and test matrix has been updated | rigorous testing of the software's internal logic, ensuring complete test coverage and efficient tracking of testing operations. |
| Black box and white box tests have been created | thorough testing, guaranteeing full test coverage and seeing any problems from the viewpoints of internal code and end users. |
| Scrum report and reflections have been done and bug report has been analyzed. | The success of Scrum reports and reflections is made possible due to the team's clear communication with each other. |
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**Things That Did NOT go Well in This Meeting:**

This is where you can list things which did not go well in the class. You should analyze why this happened and suggest how you can improve it next time. This will lead to the goal of *continuous process improvement*.

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| Topic/Work Item | Reason for Problem and How to do Better |
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**Reflections**:

1. After you run your Blackbox and Whitebox tests you are asked to record the results in both the original test document as well as in Jira. Explain why it is a good idea to record the results in both places.

* Traceability, cooperation, and communication amongst team members are all facilitated by recording test results in both the original test document and Jira. It offers a comprehensive picture of testing activity and problems found, making reporting, and auditing easier. The procedure is streamlined by the interaction with Jira's development workflow and the redundancy, which guarantees data retention. Additionally, these sources provide historical context for upcoming projects, allowing for learning from the past and ongoing development.

1. Why did we wait until the fourth milestone to write the Whitebox tests?  
   🡪 At the fourth milestone, Whitebox tests may have been written to prioritize functional testing initially and collect user feedback. Focusing on internal code testing later helps avoid excessive rework when adopting an iterative development method. The team ensures thorough coverage by devoting resources to other testing components first. Addressing essential functionality before getting into complex Whitebox testing is a risk management technique. This strategy maximises effectiveness and early software evolution adaptation.
2. For a given function did you produce more Blackbox or Whitebox tests? Explain why your answer (more Blackbox or more Whitebox) happens for most functions.  
   🡪 For the function we produced more White box test cases then the black box test cases. To create test cases that cover paths, circumstances, and branching, testers must first grasp the internal structure and logic of a function. This profound understanding enhances test coverage by guaranteeing that all potential code executions are examined. White-box tests can focus on code regions that are prone to errors, finding errors and vulnerabilities that black-box testing misses. Whitebox testing also helps developers optimize functions for increased performance by pointing up performance bottlenecks. It acts as a safety net during code maintenance and upgrades, ensuring that adjustments don't cause brand-new problems. Unit testing, which verifies separate components before integration, benefits from white-box testing. Additionally, it reveals coding mistakes, logical problems, and boundary problems, which results in early bug detection and lower development costs. Furthermore, it verifies compliance with coding standards and regulations, ensuring adherence to best practices in certain industries.
3. Explain the purpose of the automation hook for GIT and explain how it can improve the quality of the software in the project.

* A script or program known as the automation hook for GIT runs automatically at version control events, such as pre-commit and post-commit. Its goal is to automate processes like deployment, testing, and code analysis. The quality of the software in the project can be raised by employing automation hooks because they enforce uniform code standards, carry out automated testing to find problems early, and make sure that only high-quality work is pushed to the repository. As a result, manual errors are decreased, code review procedures are improved, and software is more consistently reliable and maintainable.